

Claims:

1. A stencil sheet comprising a sheet having a large number of minute perforations, said minute perforations being filled with the following resin (A), (B), or (C) as filler.

5 (A) a resin having a melting point lower than that of said sheet

(B) a resin which is soluble in a solvent

(C) a heat adhesive resin

2. The stencil sheet according to claim 1 wherein said sheet is a film of a synthetic resin.

3. The stencil sheet according to claim 1 or 2 wherein the area fraction of the opening portions of said minute perforations is in the range of 20 to 70 % and the diameters of equivalent circles are in the range of 5 to 200 μm when the opening portions are assumed to be circular in shape.

4. The stencil sheet according to claim 1 or 2 wherein said minute perforations in said sheet are trapezoidal in vertical cross section.

5. The stencil sheet according to claim 1 or 2 wherein the thickness of said sheet is in the range of 1.5 to 20 μm .

6. The stencil sheet according to claim 1 or 2 wherein said stencil sheet further comprises a porous support laminated on one side of said sheet.

7. A process for producing a stencil sheet comprising pressing a roller having drill-like projections formed on its surface against a film of a synthetic resin to form minute perforations and then filling said minute perforations with a

filler.

8. The process for producing a stencil sheet according to claim 7 wherein filling of said minute perforations with said filler is performed by applying a solution or emulsion of a resin as filler on said film of a synthetic resin having minute perforations formed therein, squeezing the solution or emulsion with a squeegee to force it into said minute perforations, and then solidifying the solution or emulsion of the resin.

9. The process for producing a stencil sheet according to claim 7 or 8 wherein the process further comprises laminating a porous support on one side of said film after a roller having drill-like projections formed on its surface was pressed against said film of a synthetic resin to form minute perforations and said minute perforations were filled with said filler or resin.

10. The process for producing a stencil sheet according to claim 7 or 8 wherein said filler or resin is selected from the group consisting of the following resins (A), (B), and (C).

(A) a resin having a melting point lower than that of said film

(B) a resin which is soluble in a solvent

(C) a heat adhesive resin

11. The process for producing a stencil sheet according to claim 7 or 8 wherein said film has an area fraction of the opening portions of said minute perforations in the range of

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20 to 70 % and diameters of equivalent circles in the range of 5 to 200 μm when the opening portions are assumed to be circular in shape.

12. The process for producing a stencil sheet according to claim 7 or 8 wherein the minute perforations in said film are trapezoidal in vertical cross section.

13. The process for producing a stencil sheet according to claim 7 or 8 wherein said film has a thickness in the range of 1.5 to 20 μm .

10 14. A process for producing a stencil plate comprising
subjecting a stencil sheet
which was obtained by pressing a roller having
drill-like projections formed on its surface against a
film of a synthetic resin to form minute perforations and
15 then filling said minute perforations with the following
resin (A), (B), or (C) as filler

(A) a resin having a melting point lower than that of
said film

(B) a resin which is soluble in a solvent

20 (C) a heat adhesive resin

to the following treatment (a), (b), or (c) according to said resin used, respectively, so that said resin in said minute perforations only at the portions corresponding to the printed images in a manuscript are removed from said film.

25 (a) When said resin is (A), an amount of heat energy is added to the surface of said film of the stencil sheet to melt said resin.

(b) When said resin is (B), a liquid which dissolves said resin is applied or added onto the surface of said film of the stencil sheet to dissolve said resin.

5 (c) When said resin is (C), a manuscript is pressed against the surface of said film of the stencil sheet while being heated to adhere said resin to the manuscript.

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